

OBFUSCATION BY DESIGN:

How Visual Complexity and Cognitive Bias
Shape Our Understanding of Political Information

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A thesis submitted to the School of Design, Carnegie Mellon University, for the degree of Master of Design in Communication Planning and Information Design.

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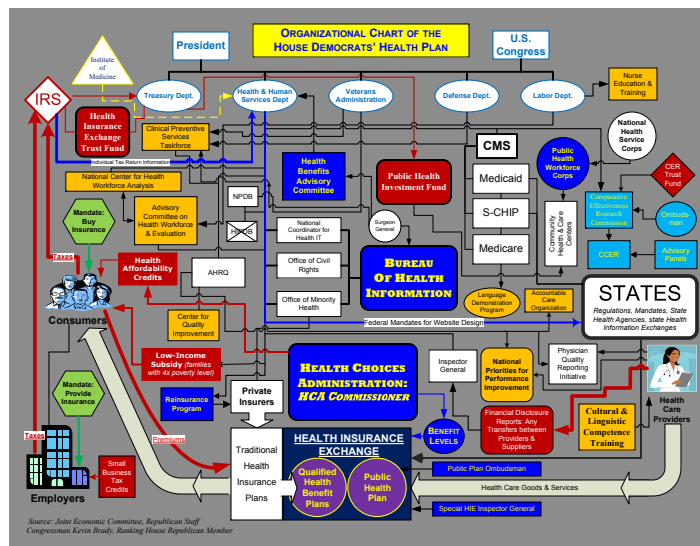
Introduction

» CONTEXT

Visual representations of information, including charts, graphs and infographics, have become increasingly common in American political media. All three have the potential to convey complex information quickly and engage the viewer more than plain text. However, visual information has drawbacks as well. In the United States and elsewhere, people’s relative inexperience in dealing with visual sources may lead to misinterpretations and allow cognitive biases to suppress more detailed examination of content. In particular, our tendency to prefer information that confirms our beliefs, whether that information is true or not—called confirmation or “myside” bias—may be amplified by our rapid assessment of visual information.

During the 2009 debate over healthcare reform, Republicans in the House of Representatives produced a chart that, intentionally or not, highlighted many of the pitfalls inherent in our collective inexperience with visual information when combined with cognitive biases. The chart (Figure 1) presents the organizational structure of government agencies, private insurers and healthcare providers proposed in healthcare reform legislation. The depiction was garishly colored, awkwardly composed and largely incoherent. These features made the chart exceptionally effective. The complexity of the design and its exaggerated aesthetics discouraged in-depth investigation of the content and allowed the viewer’s confirmation bias to determine their assessment. News articles that appeared at the time seemed to indicate that conservatives were reassured in their belief that the Democrat’s plan for healthcare reform was overly complex, bureaucratic and unworkable, while liberals could all agree that Republicans had produced a bad, biased chart. The chart had the potential to begin and end the debate over healthcare reform in a viewer’s mind in a matter of seconds.

FIGURE 1:
Healthcare reform organizational chart
designed by Republicans in the U.S. House of
Representatives. (2009)



Organizational Chart of the House Democrats' Health Plan

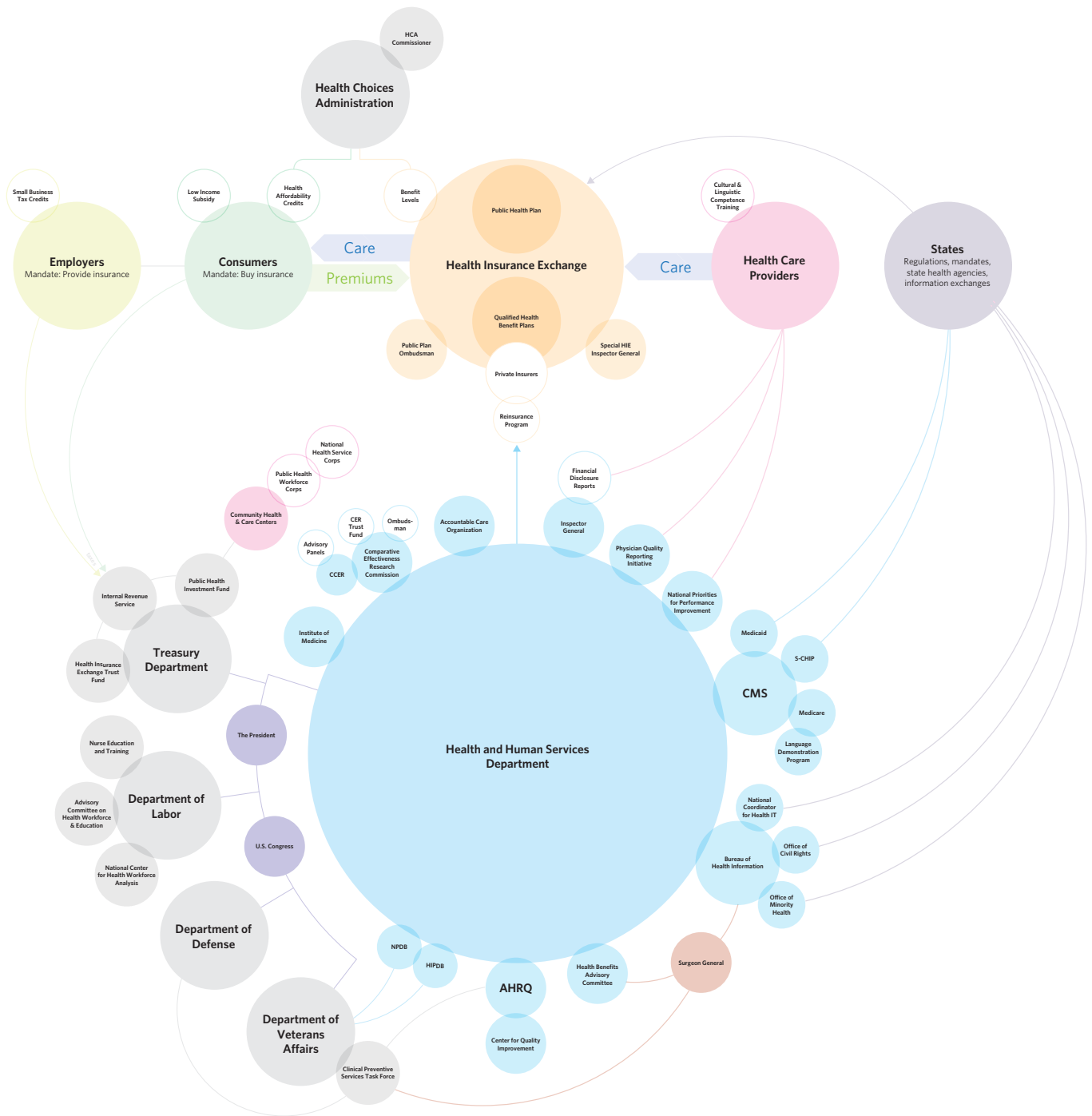


FIGURE 2:
Revised healthcare organizational chart,
designed by Robert Palmer. (2009)

The chart very quickly became a point of contention in and of itself. One designer took it upon himself to create a version (Figure 2) that was much clearer. The contrast between these two representations became a catalyst for my thesis work because it spoke to the larger issue of information and bias in politics. If the visual representation of information had the power to quickly shape public opinion on an issue, what implications did this have for political information as a whole? Could visual information be used as a uniting force, rather than a divisive one? If visual information had this kind of power, it led me to believe that even limited design education could benefit the public when it came to political information and information more generally.

» **PROBLEM STATEMENT**

Although many aspects of my thesis have evolved over time, my overall goal has always been to try to change the tone of political conversation through the proliferation and acceptance of unbiased, factual information. To this end, I asked “How can design be used to give facts an advantage over opinion and misinformation?” The answer would inform my decisions as I built an artifact that could give people the skills they need to avoid misleading information while increasing the public’s overall understanding of political information.

» PROJECT SCOPE

In order to encourage a wider acceptance of factual, unbiased political information, I found I would need to focus on one of two groups: either the producers or consumers of political information. The producers of political information seemed unlikely to endorse recommendations that promote unbiased information, so I decided to focus on the latter group. This audience was, at least potentially, more receptive to change.

The project focuses on visual representations of political information for three reasons. First, the general public often finds graphical information more approachable than text or data tables. Second, the public may not, in spite of the preference for graphical information, have the knowledge needed to properly interpret this information. Lastly, our current understanding of the impact of design on political information is largely anecdotal, and this gap in our knowledge creates an opportunity for new understanding.